

MEASLES UPDATE

National Immunization Program, Centers for Disease Control & Prevention Measles Activity through Week 52 (ending Dec 28, 2002)

CONFIRMED CASES REPORTED TO THE MMWR (U. S. only)

Cumulative Total by Week 52, 2002: 37*
Provisional*

Total by Week 52, 2001: 116

Number of OUTBREAKS IN 2002: 3
(Outbreak = 3 or more linked cases)

Number of current outbreaks: 0

To date, NIP has been notified of 42 confirmed measles cases for the reporting year 2002 (U.S. only). No new cases were reported to MMWR as of Week 3, 2003.

Confirmed cases recently reported (2002) :

Import from India in unimmunized U.S. resident

The **Chicago** Department of Public Health confirmed measles in a 22-year-old U.S. resident sick upon her return from mission work in Madras, India on **12/17/02**. The case-patient had been home schooled and had never been immunized. While in India, the unvaccinated 22-year-old resident of Wisconsin received antibiotics for sore throat and fever. On 12/17, about 5 hours before boarding Lufthansa (Madras>Frankfurt>Chicago), she broke out in rash. The Division of Quarantine was notified by Lufthansa flight crew upon arrival in Chicago. Attempts were made to notify all passengers of exposure. The patient was hospitalized and serologically confirmed in Chicago. Viral specimens received at CDC were PCR+ and genotyping is pending. This case was reported to MMWR during Week 52, 02 by **Wisconsin** since Outagamie County is the patient's county of residence. The Lufthansa flight on 12/17 (date of rash onset) was: Flight LH 759 from Madras, India to Frankfurt, Germany with transfer to LH 430 in Frankfurt, Germany for Chicago, Illinois.

Import in an 8-month-old adoptee from China

Vancouver, Washington (Clark County) will report a serologically confirmed case of measles in an adoptee from China, rash onset **12/14/02**. The adoptee arrived in Portland, Oregon on 12/4/02—10 days prior to rash onset. The 8-month-

old female had respiratory symptoms present when her new parents arrived in China on 11/23. She was hospitalized in Changsha Hunan Province in Yong Zhou for pneumonia on 11/26. She received continued care on 11/29 in Guangzhou Hospital. On 12/4, the family departed on China Southern Airline to Los Angeles to Portland. The infant was treated by a Portland HMO several times between 12/5 and 12/14 for pneumonia follow-up, fever, respiratory symptoms, and mouth infection. She was diagnosed and hospitalized in Portland on 12/14 (day of rash onset) and serologically confirmed as having measles infection (IgM+). The adoptive parents stated they did not visit the orphanage while in China and saw no others with febrile rash illness; however, the practice at one hospital was 2 or 3 families to a room with bedding was not changed between patients. The parents received a 2nd dose of MMR on 12/16. No other cases were identified. The Division of Quarantine notified the Guangzhou International Travelers Healthcare Center and the U.S. Consulate regarding the case.

Outbreak in Lee County, Alabama

Total confirmed: 13 cases

Rash onset dates: 10/19/02 - 11/15/02

Setting: Day-care

Source: Import from the Philippines

Ages: Eleven cases were <13 mos;

31 yrs & 50 yrs

Genotype: D3

Recently, the Alabama Department of Public Health **officially reported 12 cases** from a Lee County outbreak (near Opelika/Auburn area). The source case was a 7-month-old U.S. resident who attended day-care while infectious after returning from the Philippines on Oct 8. Two adults were also infected with direct links to the day-care cases. One adult spread-case was an unimmunized 50-year-old nurse exposed in a hospital setting; while the other was a vaccinated 31-year-old male who visited from Alpharetta, Georgia (**GA has officially reported**). The Georgia case (rash 11/14) had been vaccinated during outbreak control but the CDC Measles Lab was able to identify wild-type virus. Viral specimens were obtained from nearly every case involved in this outbreak. Genotype was D3, consistent with virus known to be circulating in the Philippines.

Week 52, 2002

MEASLES CASES CONFIRMED as of January 17 , 2003

#	Proj	Age/DOB	Rash Onset	VAX	Spread Cases	Reported to MMWR	Viral Specimens Received	Comments/Source Country
1	FL Unknown	37-year- old female	12/27/01	N	No	Yes (Wk 37, 2002)	No	Broward County, last of December 2001 Will be included in 2002 data. Source is unknown
2	CA Unknown	10 year old male	2/8/02	Y (1)	No	Yes	No	Outpatient in Long Beach Hospital Source Unknown; part of 3-case OUTBREAK VACCINATED AT 51 weeks of age;
3	CA Unknown	25 year old male	2/11/02	N	No	Yes	No	Hospital employee in Long Beach Source Unknown; part of 3-case OUTBREAK
4	CA Unknown	40 year old male	2/11/02	N	No	Yes	No	Hospital employee in Long Beach Source Unknown: part of 3-case OUTBREAK
5	FL IMPORT	18 month old female	2/16/02	N	No	Yes	No	U.S. resident in Manatee County / IMPORT Travel to Miami 1/31 & Dominican Republic 2/1-4
6	NYC IMPORT	7 month old male	3/8/02	N	Yes (1)	Yes	No	IMPORT from Pakistan, U.S. resident Source for Brooklyn OUTBREAK Infected 20-year-old aunt (rash onset 3/21 below)
7	NYC Traceabl	20 year old female	3/21/02	N	Yes (1)	Yes	No	Traceable to Import from Pakistan (case #6) Brooklyn OUTBREAK Infected her 2.5 month old son (rash onset 4/4 below)
8	NYC Traceabl	2.5 month old male	4/4/02	N	Unk	Yes	No	Traceable to import from Pakistan Brooklyn OUTBREAK Source is case # 7
9	HI IMPORT	14-year-old female	3/29/02	U	No	Yes	No	Visitor in Honolulu from Japan. Reported to MMWR in Week 30.
10	NYC IMPORT	11 month old female Manhattan (DOB 4-01)	4/6/02	N	Unk	Yes	Yes, D4	Single IMPORT U.S. resident /Pakistan Genotype D4 Not outbreak related
11	NYC D8	11 month old female Brooklyn (DOB 5-01)	4/23/02	N	Unk	Yes	Yes, D8	Unknown source; not linked to cases above. Reported as import but case will be resent as indigenous. The child had not traveled but virus suggests importation.
12	NYS IMPORT	18 month old	5/22/02	N	No	Yes	No	Non U.S. resident, IMPORT from India. Had been living in India. ORANGE County, NYS
13	GA IMPORT	22-year-old female	6/17/02	N	No	Yes	Yes, B3	Flew back 6/11-12 Lagos to London to DC to Cincinnati to Chattanooga Import from Nigeria; U.S. resident of GA Hosp in Mississippi w/pneumonia (college student in TN) GA resident; Genotype B3. She was returning from mission work.
14	NV Unknown	23-year-old male Las Vegas	6/20/02	U	No	Yes	No	Likely a measles false positive -- CMV + also Born in Hawaii, in Clark County since age 19; additional lab work could not be done Initial specimen (discarded) by private lab. IgM+ and patient met case definition.
15	OH IMPORT	9-year-old	6/23/02	U	No	Yes	Yes, D7	Import from Italy, visitor
16	GA IMPORT	40-year-old female	6/28/02	N	No	Yes	No	Visiting scientist from RUSSIA; No virals were obtained. Arrived 21 days before rash onset. One co-worker at CDC was excluded.
17	IN Unknown	19-year-old male	7/3/02	U	No	Yes	No, Serology was IgM+ at CDC	Foreign born restaurant worker residing in Madison County; IgM positive results at CDC. Unknown source, no spread cases Found. IgM iwas indeterminate by Indiana State Lab.
18	TX IMPORT	38-year-old female	7/10/02	U	No	Yes	Yes, State Lab only but not successful	Importation from Iran, residency unknown Born in Lubbock, Iran from age 5-10years, later lived in Switzerland.
19	MN IMPORT	29-year-old female	7/16/02	Y(2)	No	Yes	No	Not U.S. resident ; Pregnant female (5 months) arriving in St. Paul from the Ukraine; Vax history: One dose at 10 mos and another at age 11 yrs.
20	CA D7	31-year-old twin brother	7/14/02		Yes (1)	No	Yes, at the State Lab & CDC	Unknown source; Genotype D7 San Francisco resident, twin brother to next case
21	CA D7	31-year-old twin brother	7/26/02		No	No	Yes, at State Lab & CDC	Unknown source, Genotype D7 San Francisco resident, twin brother to above case

#	Project	Age/DOB	Rash	VAX	Spread?	Reported to MMWR	Viral Specimens Received	Cmments / Source Country
22	MO IMPORT	30-year-old male	7/21/02	Y (1)	Yes (1)	Yes	No	U.S. resident in Malaysia July 9-19. Flights from Malaysia/Singapore/HongKong/Chicago/ St. Louis, Missouri on 7/18-19. Hospitalized 7/22 History of vaccination before 1 st birthday
23	MO Traceabl	32-year-old male	8/4/02	U	No	Yes	No	Spread case from Malaysian import above
24	NYC IMPORT	24-year-old	8/11/02	N	No	Yes	No	Non U.S. resident/ Import from Japan
25	IN IMPORT	34-year-old male	8/11/02	U	Yes	Yes	Yes	U.S. resident IMPORT from South Africa Returned to U.S. on July 28 after mission trip (orphanage)
26	AL IMPORT	9-mo-old	10/19/02	N	Yes (12)	Yes	Yes D3 outbreak	Index for Lee County Outbreak in a day-care U.S. resident/ Philippines ; returned on Oct 8, 02
27	AL Traceabl	11-mo-old	10/31/02	N		Yes	D3	Outbreak related/ Traceable to Import
28	AL Traceabl	10-mo-old	10/31/02	N		Yes	D3	Outbreak related/ Traceable to Import
29	AL Traceabl	11-mo-old	11/01/02	N		Yes	D3	Outbreak related / Traceable to Import
30	AL Traceabl	11-mo-old	11/01/02	N		Yes	D3	Outbreak related/ Traceable to Import
31	PA Unknown	11-mo-old	11/02/02	N	No	To be reported Soon by PA	Received, Not successful	Not outbreak -related The child is a resident of York City, PA (infected in PA) who became And was hospitalized in NYC while visiting for Halloween wkend There were conflicting serologic results but child was IgM+ While hospitalized in NYC and had fever of 104, cough, coryza 4 day rash
32	AL Traceabl	10-mo-old	11/03/02	N		Yes	D3	Outbreak related /Traceable to Import
33	AL Traceabl	9-mo-old	11/09/02	N		Yes	D3	Outbreak related/ Traceable to Import
34	AL traceabl	9-mo-old	11/10/02	N		Yes	D3	Outbreak related/ Traceable to Import
35	AL Traceabl	10-mo-old	11/11/02	N		Yes	D3	Outbreak related / Traceable to Import
36	AL Traceabl	9-mo-old	11/11/02	N		Yes	D3	Outbreak related/ Traceable to Import
37	AL Traceabl	13-month-old	11/14/02	N		Yes	D3	Outbreak related / Traceable to Import
38	GA Traceabl	31-yr-old male	11/14/02	Y (2)		Yes	D3 – patient was vaccinated for outbreak control but CDC Lab able to identify wild type virus	Outbreak related / Traceable to Import Recall Hx of 2 doses after 1 st birthday (not counting the outbreak Dose) but hx was not documented.
39	AL Traceabl	50-yr-old female nurse	11/15/02	N		Yes	D3	Outbreak related / Traceable to import
40	MN IMPORT	8-mo-old	11/29/02	N		No	Not at CDC Maybe at State lab	Import from Philippines in Anoka County Not US resident
41	WI IMPORT	22-year-old female	12/17/02	N		Yes	D8	22-year-old Wisconsin resident IMPORT from India (mission work) , unvaccinated & homeschooled Hospitalized and confirmed in Chicago Infectious on plane upon return into Chicago on 12/17/02.
42	WA IMPORT	8-month-old female	12/14/02	N		No	No	Adoptee from Orphanage in China Arrived 12/4/02 Hospitalized in Portland, Oregon

2002 Measles Outbreaks (3 or more cases)

Shaded = outbreak was epi-linked to an imported case
 Double outline = viral sequencing was successful for an outbreak case

	Proj	Location	1 st & Last Rash	#Conf Cases	Ages	Source	Comments
1	CA	Long Beach	2/8/02 - 2/11/02	3	10 years, 25 years, 40 years	Unknown	Source unknown, hospital setting. No viral specimens collected.
2	NYC	Brooklyn	3/8/02 - 4/4/02	3	2.5 months, 7 mos & 20 yrs	Pakistan	Source was 7 month old (import) Pakistan. All 3 epi-linked, relatives. No viral specimens received
3	AL	Lee County (Auburn/Opelika)	10/19/02 - 11/14/02	13 12 (AL) 1 (GA)	Most <12 mos, in one day-care. One spread to nurse (AL) and a 31-yr-old vax male from Georgia	Philippines	Index (10/19) day-care attendee was exposed in the Philippines. Eleven were spread cases in day-care enrollees <13 months of age and one was a 50-year-old nurse (AL). the 13 th case is a 31-year-old Dad in GA. who visited one of the families with sick child in Alabama. Sequencing was done at CDC: Strain was genotype D3.

Please send questions or comments to Dr. Mark Papania, Chief, Measles Elimination Activity, or to r Ms. Susan Redd of the National Immunization Program via e-mail to: sbr1@cdc.gov, fax (404) 639-8665, or call (404) 639-8763/8230. We appreciate knowing of any measles activity in your project area.

For genotyping results, new publications, press releases etc., please visit the CDC Measles Lab website:
<http://www.cdc.gov/ncidod/dvrd/revb/measles/>